

Approved Conservation Advice
(s266B of the *Environment Protection and Biodiversity Conservation Act 1999*)

Approved Conservation Advice for
***Eucalyptus raveretiana* (Black Ironbox)**

This Conservation Advice has been developed based on the best available information at the time this Conservation Advice was approved; this includes existing plans, records or management prescriptions for this species.

Description

Eucalyptus raveretiana, Family Myrtaceae, also known as Black Ironbox, is a medium sized tree to 25 m. The bark is rough on the trunk and largest branches, slightly furrowed, hard and dark grey. Most branches are smooth, white, grey or pale blue. Adult leaves are stalked, lance-shaped, 8–15 cm long, 1–3.5 cm wide, dark green on upper surface and much paler below. Flowers are formed in terminal clusters, with 7 buds per umbel. Flower buds are diamond-shaped, 3–4 mm long when mature, on stalks 2–4 mm long. Fruit is hemispherical, approximately 2 mm long and wide, with the 3 or 4 valves prominently exerted.

Eucalyptus raveretiana is similar in appearance to *E. howittianum*, but is distinguished by the valves of the fruit, which are prominently projecting. Black Ironbox has the smallest fruit of any eucalypt (Brooker & Kleinig, 2004; CPBR, 2006). Flowering occurs December to January.

Conservation Status

Black Ironbox is listed as **vulnerable**. This species is eligible for listing as vulnerable under the *Environment Protection and Biodiversity Conservation Act 1999* (Cwlth) (EPBC Act) as, prior to the commencement of the EPBC Act, it was listed as vulnerable under Schedule 1 of the *Endangered Species Protection Act 1992* (Cwlth). Black Ironbox is also listed as vulnerable under the *Nature Conservation Act 1992* (Queensland).

Distribution and Habitat

Black Ironbox occurs between Rockhampton and Ayr in Queensland. The extent of occurrence is about 90 000 km² (Queensland Herbarium, 2008). There are 23 recorded sites or subpopulations in two main areas of occurrence: Nebo to Ayr, and Apis Creek to Rockhampton (Halford, 1997; Queensland Herbarium, 2008). The total population is unknown. This species occurs within Burdekin and Fitzroy (Queensland) Natural Resource Management Regions.

Black Ironbox occurs on the banks of rivers, creeks and other watercourses, on clayey or loamy soil (Queensland Herbarium, 2008). A number of populations occur in areas of remnant vegetation (Environmental Protection Agency, 2008) as defined under the *Queensland Vegetation Management Act 1999* and are therefore protected from broad-scale vegetation clearing. Black Ironbox produces a millable log and has been harvested for railway sleepers and fencing material (Hall et al., 1970).

This distribution of Black Ironbox overlaps with the following EPBC Act-listed threatened ecological communities:

- Brigalow (*Acacia harpophylla* dominant and co-dominant),
- Bluegrass (*Dichanthium* spp.) dominant grasslands of the Brigalow Belt Bioregions (North and South), and
- Semi-evergreen vine thickets of the Brigalow Belt (North and South) and Nandewar Bioregions.

Threats

The main identified threat to Black Ironbox is habitat disturbance and smothering by Rubber Vine (*Cryptostegia grandiflora*) (Halford, 1997; Calvert et al., 2005).

The main potential threats to the species include timber harvesting and disturbance of habitat during timber harvesting operations (Halford, 1997). Other potential threats to the healthy regeneration of Black Ironbox include increased fire frequency from fuel associated with weeds and introduced grasses; and land management that increases stream bank erosion (Calvert et al., 2005).

Research Priorities

Research priorities that would inform future regional and local priority actions include:

- Design and implement a monitoring program or, if appropriate, support and enhance existing programs.
- More precisely assess population size, distribution, ecological requirements and the relative impacts of threatening processes, especially weeds.
- Determine fire regime requirements for Black Ironbox and its habitat.

Regional and Local Priority Actions

The following regional and local priority recovery and threat abatement actions can be done to support the recovery of Black Ironbox.

Habitat Loss, Disturbance and Modification

- Identify populations of high conservation priority.
- Ensure chemicals or other mechanisms used to eradicate weeds do not have a significant adverse impact on Black Ironbox.
- Monitor known populations to identify key threats.
- Minimise adverse impacts from land use at known sites, particularly in relation to forest operations and maintenance of stream bank and riparian vegetation integrity.
- Investigate formal conservation arrangements, management agreements and covenants on private land, and for crown and private land investigate inclusion in reserve tenure if possible.

Invasive Weeds

- Identify and remove weeds in the local area, which could become a threat to Black Ironbox, using appropriate methods.
- Manage sites to prevent introduction of invasive weeds, which could become a threat to the species, using appropriate methods.
- Implement a management plan for the control of Rubber Vine in the region.

Fire

- Develop and implement a suitable fire management strategy for Black Ironbox.
- Provide maps of known occurrences to local and state Rural Fire Services and seek inclusion of mitigative measures in bush fire risk management plans, risk register and/or operation maps.

Conservation Information

- Raise awareness of Black Ironbox within the local community.

Enable Recovery of Additional Sites and/or Populations

- Undertake appropriate seed collection and storage.
- Investigate options for linking, enhancing or establishing additional populations.
- Implement national translocation protocols (Vallee et al., 2004) if establishing additional populations is considered necessary and feasible.

This Conservation Advice was approved by the Minister / Delegate of the Minister on:
16/12/2008

This list does not necessarily encompass all actions that may be of benefit to Black Ironbox, but highlights those that are considered to be of highest priority at the time of preparing the conservation advice.

Existing Plans/Management Prescriptions that are Relevant to the Species

- Weeds of National Significance – Rubber Vine (*Cryptostegia grandiflora*) Strategic Plan (ARMCANZ, 2000).

This was the most current prescription at the time of publishing; please refer to the relevant agency's website for any updated versions.

Information Sources:

Agriculture and Resource Management Council of Australia and New Zealand (ARMCANZ) 2000, *Weeds of National Significance – Rubber Vine (Cryptostegia grandiflora) Strategic Plan*, Australian & New Zealand Environment & Conservation Council and Forestry Ministers National Weeds Strategy Executive Committee, Launceston, viewed 30 June 2008, <<http://www.weeds.org.au/docs/rvstrat.pdf>>.

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Calvert, GA, Lokkers, C, & Cumming, R 2005, *Rare Plants of Townsville Thuringowa*, Coastal Dry Tropics Landcare Inc. Townsville.

Centre for Plant Biodiversity Research (CPBR) 2006, *Eucalyptus raveretiana* fact sheet in EUCLID, Eucalypts of Australia, Third Edition, interactive CD ROM, CSIRO Publishing, Collingwood, Victoria.

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Hall, N, Johnston, RD & Chippendale, GM 1970, *Forest Trees of Australia*, Third Edition, Australian Government Publishing Service, Canberra.

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Vallee, L, Hogbin, T, Monks, L, Makinson, B, Matthes, M & Rossetto, M 2004, *Guidelines for the Translocation of Threatened Plants in Australia* (2nd ed.), Australian Network for Plant Conservation, Canberra.